UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

Office Of Prevention, Pesticides, and Toxic Substances

MEMORANDUM

DATE: April 13, 2005

SUBJECT: Data Evaluation Records Review For The Effect Of BAS 500 00 F (Pyraclostrobin) On Aquatic Ecosystems---- An Outdoor Mesocosm Investigation (Chemical PC Code: 099100, Barcode D299076)

FROM: Lewis Ross Brown, Biologist 4/04/2005
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EFED/ERB 1 has completed the review of the Aquatic mesocosm field study for pyraclostrobin (Chemical PC Code: 099100). Attached is the final copy of each ecotoxicity Data Evaluation Record (DER). Brief summaries are listed below:

MRID # 461640-03–The Effect Of BAS 500 00 F on Aquatic Ecosystems– An Outdoor Mesocosm Investigation: The Mesocosm Section–This study is not scientifically sound and does not fulfill OPPTS 850.1950 "Field Testing Of Aquatic Organisms" EPA 712-C-96-135 guidelines. Therefore, this test is deemed **"Invalid"** based on the supporting rationales:

(1) The original control samples for this test were contaminated thereby making any results obtained "invalid"; (2) test material concentrations were not measured in all treatment ponds following each application; and (3) concentration levels to which the mesocosm flora and fauna were exposed to were not determined.

MRID # 461640-03–The Effect Of BAS 500 00 F on Aquatic Ecosystems– An Outdoor Mesocosm Investigation: The Fish Section–The Fish portion of this study was classified as **"Invalid"** based on the following:

(1) The original control samples for this test were contaminated thereby making any results obtained "invalid"; (2) an unknown fungal contaminant was noted near the test initiation site thus causing some of the test fish to die; (3) the fishes were initially introduced into large cages within

the large mesocosm ponds on April 24, 1997, but were then transferred to smaller ponds on April 29, 1997. It was adequately described within the study report why fish were tested in small separate ponds and not in the mesocosm ponds as recommended by the existing guidance documents: OPPTS 850.1950 "Field Testing Of Aquatic Organisms" EPA 712-C-96-135 (April 1996) and SETAC (July 1991) "Guidance Document On Testing Procedures For Pesticides in Freshwater Mesocosm"; (4) the fishes were tested in ponds separate from the mesocosm and were fed commercial food rather than being forced to forage from test initiation and throughout the study period on the potentially contaminated planktonic and benthic populations associated with mesocosm treatment levels. Bioaccumulation, one of the principle aspects associated with mesocosm studies, was potentially circumvented. Treatment fish were initially fed with a specific diet for young fish (amino start) and later with floating feed (Tetra-pond) which eased observations; and (5) all treatment levels were not measured for BAS 500 00F concentrations at any time during the study period (only the highest treatment level was analyzed following each of the eight applications. Consequently, it can not be determined if fish were actually exposed to any concentrations of BAS 500 00F below those measured in treatment level IV.

Please contact Lewis Ross Brown at (703) 305-0278 with any questions or comments.